

AUSTRALIAN COLEOPTERA

PART III.

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[Read September 14, 1922.]

HALIPLIDAE.

I was asked to investigate the question, regarding the number of joints in the antennae of the *Halipli*, by Mr. Sloane, to whom I desire to express my thanks for specimens of exotic species, and for his kindly advice and suggestions.

I had already prepared a drawing and notes on *Haliplus ruficollis*, De Geer (Germany), when I heard from Mr. Sloane that Dr. Frits van Emden had already published a paper (Entomologische Mitteilungen, Band xi., Nr. 2, 15 Marz, 1922) with a drawing and a description of an antenna of this insect, and, as I have been able to dissect joint 1 from its socket in the head, I thought it desirable to publish this drawing in addition to the antenna of *H. testudo*, Clark (Australia). With both of the above species I was able with relaxed specimens to move each of the individual eleven joints separately, the basal joint moving quite freely in its socket in the head.

In addition to those names already mentioned by Dr. van Emden, we find in the following publications the antennae of the Haliplidae referred to as having ten joints:—Lacordaire, vol. i., p. 411 (*Haliplus*), "Antennes courtes, de 10 articles: 1 petit, 2-9 obconiques subégaux, 10 plus long, terminé en pointe." Kraatz, Insecten Deutschlands, p. 9 (Haliplini), "Antennae frontales, decemarticulatae." Sharp, Cambridge Natural History, vol. ii., p. 209, "Antennae bare, ten-jointed." Packard, Guide to the Study of Insects, p. 436, "In *Haliplus* the antennae are ten-jointed." Rye, British Beetles, p. 62 (*Haliplus*), ". . . their antennae are ten-jointed." Sharp, in the Biologia Centrali-Americana, vol. i. (2), gives a figure of *Haliplus solitarius* (pl. i., fig. 1), but in the description on page 2 does not even mention the antennae. Stephens, Manual of British Beetles, p. 61, speaking of *Haliplus*, says, "antennae ten-jointed."

Apparently all these writers had regarded the two basal joints as one, the first division being considered the "bulb of insertion," similar to that found in the Carabidae. The insects comprising the genus *Haliplus* have no bulb to the first joint (fig. 1, a and c), which is inserted into the head and moves freely in its socket (fig. 1, b), and joint 2, in turn, articulates on joint 1. For the purpose of comparison a

drawing is given of an antenna of a carab, *Lebimorpha benefica*, Newm. (fig. 1, d), showing the bulbous basal part

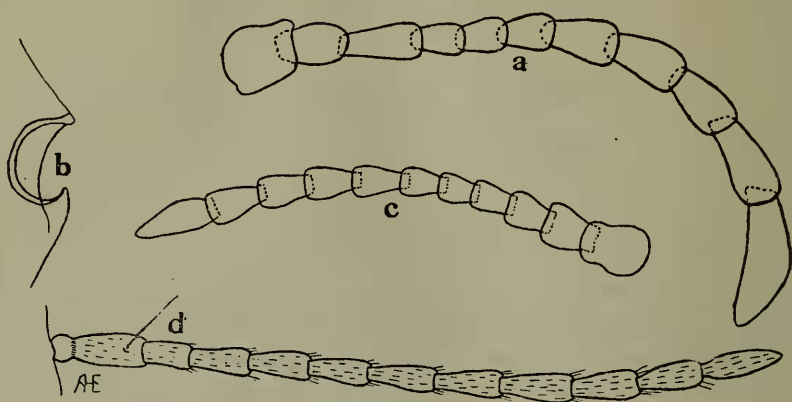


Fig. 1.

a, Antenna *Haliphus ruficollis*, De Geer; b, socket for reception of antenna *H. ruficollis*; c, antenna *H. testudo*, Clark; d, antenna *Lebimorpha benefica*, Newm.

of joint 1; on the first joint of each antenna is to be seen a long tactile seta situated in the middle before the apex.

PAUSSIDAE.

ARTHROPTERUS ARTICULARIS,⁽¹⁾ Elston.

The length of this species should read 9.9.5 mm., not 5.5.5 mm., as printed.

HISTERIDAE.

CHLAMYDOPSIS EPIPLEURALIS, Lea.

Five specimens of this species were taken by R. F. Kemp and myself from the nest of the common small black ant (*Iridomyrmex*, sp.), in the Mount Lofty ranges. They are variable in size, ranging from 2.5 to 4 mm. in length; the smallest is much paler than the typical form, its colour is testaceous, with parts of the elytra almost flavous.

COLYDIIDAE.

Todima fulvicincta, n. sp. (Fig. 2).

Elongate; piceous, with clypeus, antennae, sides of prothorax, portions of elytra, and parts of legs, fulvous. Scantly clothed with short, golden hairs, fairly numerous on front of prothorax, and on the elytra arranged in rows towards apex. Under-surface nitid, piceous, except forepart of head and sides of prosternum, which are fulvous; sparsely clothed with short, depressed, golden hairs.

(1) Elston, Trans. Roy. Soc. S. Austr., 1919, p. 342.

Head subquadrate, anterior margin and sides near the middle contracted, with a shallow, elongate depression near base of each antenna; and with dense, small, subrugose punctures. *Antennae* about four-fifths the length of head, moderately robust, second joint approximately twice the length of the first, joints 4 to 8 little more than half the width of the second, and not quite as long, the ninth wider than the eighth, the tenth more than twice as wide as the ninth and almost semicircular in shape, the apical longer than and about three-quarters the width of the tenth, almost circular.

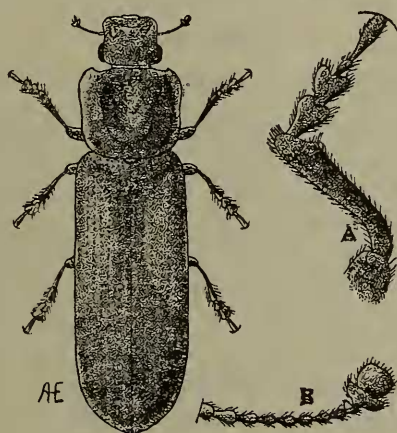


Fig. 2.

Todima fulvicincta, n. sp. A, front leg. B, antenna.

Prothorax about one and half times wider than head, the anterior margin wider than the base, sides contracted near the middle, the anterior angles acute, posterior ones rounded, disk with a large, shallow, obovate depression, and divided transversely with a more or less distinct raised portion; with dense, subrugose punctures, larger and more distinct than those on head. *Scutellum* very small and somewhat semicircular. *Elytra* at base slightly wider than prothorax, and about three times as long, sides parallel to beyond the middle, and evenly rounded towards apex; with closely placed seriate punctures, larger than those on prothorax. *Legs* robust, first two joints of tarsi dilated. Length, 3.5-4.5 mm.

Hab.—South Australia, taken in *Xanthorrhoea* on the summit of the Devil Peak, near Quorn (R. F. Kemp and A. H. Elston). Type, in author's collection; co-type, I. 15232, in South Australian Museum.

A very distinct species, and easily distinguished by its markings. The fulvous part on the prothorax is widest in front, sometimes disappearing before base, and on each elytron is in the form of a crescent, the convex side reaching a little more than half-way across, between the margin and the suture; this crescent-shaped part varies somewhat in size on

the twenty-two examples before me; a narrow edge at the apex of the elytra is also fulvous, and on most specimens is joined to the crescent-shaped patch with a very narrow strip at the margins. The head and prothorax are in parts shagreened owing to the density of the punctures. The femora and tibiae are brown, in parts paler, the base and apex of the latter, and the tarsi are fulvous. A more robust species than *T. lateralis*, Blackb., with the shape of the prothorax very different, the punctures on the elytra larger, and the two first joints of the tarsi more dilated.

CLERIDAE.

Phlogistus agraphus, n. sp.

Upper-surface piceous, subnitid, appendages of mouth and the antennae testaceous, club of latter infuscated, head in parts reflecting blue, legs dark blue to piceous. Clothed with moderately long griseous hairs, thicker at the sides of prothorax than elsewhere. Under-surface green, with brassy reflections, and scantily clothed with griseous hairs.

Head with a distinct, round, moderately deep fovea between the eyes, and with closely-set, somewhat deep punctures, more or less rugose towards forepart. Antennae reaching to about middle of prothorax, joints 9 and 10 transverse, the eleventh ovate-acuminate. *Prothorax* transverse, the anterior margin wider than the basal one, before apex with a curved, and at the base with a straight transverse impression, the centre of disc with a moderately deep depression, in the centre of which is a tolerably long, deep furrow, the sides are strongly rounded, the greatest distance between them near the middle; with somewhat dense punctures, about same size as those on head but more feeble, transversely rugose on disk and sides. *Elytra* at base distinctly wider than prothorax, and about twice as long as wide, sides parallel to beyond the middle, then gently rounded off towards apex; with ten rows of large, deep, quadratic punctures, which start from behind the base and extend to about the apical quarter of elytra, the apical fourth with rows of almost obsolete punctures. *Legs* robust, posterior femora almost reaching apex of abdomen. Length, 9.5-11 mm.

Hab.—Western Australia: Cottesloe (H. M. Giles); Perth (J. Clark). Type, in author's collection; co-type, I. 15337, in South Australian Museum.

A very robust species; on some specimens the greenish reflections on the elytra are stronger than on others; on the elytra the basal and apical portions are more nitid than the remainder, the large seriate punctures suddenly cease at the apical fourth, then continued, only very feebly, in rows to the apex. In sculpture it comes nearest to *Ph. imperialis*,

Gorham, but differs in being more robust, in the shape of the prothorax, the punctures on same more feeble, the basal part of elytra more tumid, and the punctures on elytra somewhat larger.

Phlogistus rubriventris, n.sp.

Shining black, palpi, apical joint of antennae and tarsi slightly diluted with red, the abdomen and tarsal claws red; moderately clothed with pale hairs, semi-erect on the upper-surface and depressed underneath.

Head somewhat elongate; with a large, round, interocular depression, and dense punctures, which are individually distinct on the top of head, but smaller and more rugose towards the forepart. Antennae reaching to about the middle of prothorax; club three-jointed, ninth joint obconical, tenth almost transverse, and the eleventh ovate-acuminate. Prothorax transverse, before the anterior margin with a curved, and at the posterior one with a straight transverse impression, a moderately deep fovea on the disk, situated immediately behind the anterior transverse impression, and a shallow depression at each side near the middle; the lateral margins are well rounded, the greatest width between them being near the middle; less closely punctured than the head, the punctures are somewhat scattered on the disk, but at the sides they are closer and more or less rugose. *Elytra* at base much wider than the prothorax, about twice as long as wide, sides almost parallel and gently rounded off towards apex, shoulders prominent; with ten rows of moderately large, almost quadratic, punctures, which begin at the base and extend to the extreme apex. *Legs* comparatively short, the posterior femora not reaching the apex of elytra, claws moderately long, with a conspicuous tooth, situated on the inside near the middle. Length, 7.85 mm.

Hab.—Western Australia: Eradu (J. Clark). Type, in author's collection; co-type, I. 15338, in South Australian Museum.

This species is very distinct from any other *Phlogistus* known to me, the very conspicuous median teeth on the claws made me, at first, feel doubtful as to it being a *Phlogistus*, but on examining the claws under a moderately high power, I find that these teeth appear to have their origin at the base of the claws. The punctures at the base, on the shoulders, and towards the apex of elytra are slightly smaller than those on the disk, but nevertheless, are very distinct, the extreme apex of elytra is truncate, and at the sutural angle somewhat acuminate. A specimen from New South Wales, in the collection of Dr. E. W. Ferguson, is possibly a variety of this species; it differs from the type in having the palpi and antennae pale, the apical joint of the latter more elongate;

the prothorax is somewhat differently shaped, in *rubriventris* the anterior and posterior margins are about equal in length, but in the New South Wales specimen the anterior margin appears to be wider, also the surface of the prothorax is less nitid, not so uneven, and with more feeble punctures; otherwise it agrees very well with the above description.

Phlogistus unguatus, n.sp.

Black, subnitid, antennae and appendages of mouth brownish, claws reddish. Somewhat thickly clothed with pale hairs, more or less shaggy on the upper-surface and depressed on the under-surface.

Head with a shallow longitudinal impression near the base of each antenna, and with small, shallow punctures, somewhat scattered on the top, but towards forepart closer, and more or less rugose. Antennae short, barely reaching to middle of prothorax, club three-jointed, joints 9 and 10 transverse, the apical almost as long as the two preceding combined and obtusely pointed. *Prothorax* barely transverse, behind the anterior margin and at the base with comparatively shallow transverse impressions; a feeble longitudinal impression on the disk, situated immediately behind the anterior transverse one, and on each side near the middle of the lateral margin a round depression; the punctures are somewhat more feeble than those on the head, and rugose at the sides. *Elytra* at the base distinctly wider than prothorax, and about twice as long as wide, sides parallel to beyond the middle and then gently rounded off towards apex; with ten rows of moderately deep and almost quadratic punctures, starting at the base and reaching to the extreme apex. Posterior *femora* do not reach apex of elytra, the basal teeth on the claws very long and conspicuous. Length, 4.5-5.5 mm.

Hab.—Western Australia: Swan River (J. Clark). Type, in author's collection.

Very closely related to the preceding species but easily distinguished from it by its smaller size, the whole of the under-surface is black, more hairy, and the punctures, particularly on the prothorax, are more feeble, and with apex of each elytron rounded. The peculiar structure of the claws readily distinguishes this, and the preceding species, from all previously described ones, the basal teeth on the claws of the present species are very elongated, nearly extending to the apex of the claw, and giving it the appearance of being cleft.

Phlogistus leucocosmus, n.sp.

Upper-surface subnitid, blue, antennae and appendages of mouth more or less testaceous, head greenish-blue, elytra almost violet, clothed with somewhat shaggy pale hairs, very

densely arranged near middle of elytra, and forming an oblique fascia on each. Under-surface greenish-blue and rather scantily clothed with pale, depressed hairs.

Head wide, with a large round interocular depression and close rugose punctures. Antennae moderately long, reaching to beyond the middle of prothorax, joints 9 and 10 obconical, the eleventh ovate-acuminate. *Prothorax* almost as long as wide, before the apex with a curved, and at the base with a straight transverse impression, the latter deeper than the former, the disk with a deep round depression, the top of which touches the anterior transverse impression, sides well rounded, the greatest distance between them being near the middle; middle of disk with fine transverse wrinkles, the punctures only individually distinct near apex and sides. *Elytra* at base wider than prothorax and about twice as long as wide, sides almost parallel to beyond the middle then gently rounded off towards apex, humeral angles prominent, with ten rows of moderately large punctures, which begin from behind the base and end abruptly at the median fascia of hairs, the base with only a few small, scattered punctures, the posterior part behind the fascia with disjointed rows of obsolete punctures. Posterior *femora* do not reach apex of posterior part of body. Length, 6.5-7 mm.

Hab.—Western Australia: Swan River (J. Clark). Type, in author's collection.

A very distinct species, and readily distinguished by the oblique fascia of pale hairs near the middle of the elytra. On one specimen the head is green with brassy reflections, and underneath the fascia of hairs there are traces of green. The sculpture of the elytra is very similar to that of *Ph. mundus*, Blackb., but is distinguished from it by its colour and the elytral fascia, the shape and puncturation of the prothorax is also different, and the eyes are somewhat more prominent.

PHLOGISTUS PUNCTATUS, Hintz.

A specimen from Bowen, Queensland, agrees very well with the author's description, except that the whole of the antennae are testaceous, the labrum, anterior and intermediate legs are also of the same colour, the two latter have their knees infuscated, the posterior tibiae on the under-surface are pale. The sutural row of punctures begins almost immediately behind the scutellum.

TARSOSTENUS UNIVITTATUS, Rossi.

Opilo incertus, Macl.

Macleay's name will now have to be added to the several synonyms of this cosmopolitan species. There are specimens of it in my collection from Queensland, South Australia, and Western Australia, and they are, *inter se*, variable both

in size and colour. A specimen from South Australia is much paler than the typical form, its colour is a reddish-brown with the head almost black, and the fascia on the elytra yellow; on some the whole of the legs are ferruginous, here and there infuscated.

Tarsostenodes leucogramma, n.sp.

Elongate; testaceous, with a spot on each elytron near the scutellum, a larger one below each of these, the posterior half of elytra, and parts of the legs, bluish-black or black; a little behind the middle of elytra are two raised white bands obliquely placed, touching the margins but not the suture, midway between these and the humeral angles, near but not touching the margins, two raised white maculae, and about midway between the latter, near the base but not touching the suture, two similar, but somewhat smaller, maculae. Clothed with moderately long, semi-erect, black hairs, those on the posterior part of elytra are thickly interspersed with shorter and more depressed silvery ones. Under-surface testaceous, with the exception of the abdomen, which is black; very scantily clothed with short pale hairs.

Head with small, closely placed, rugose punctures. Antennae slender, second joint small and globular, 3 to 8 elongate, the eighth distinctly shorter than the preceding one, club three-jointed, apical joint ovate-acuminate. *Prothorax* elongate, convex, with a shallow subapical transverse impression, posterior margin narrower than the anterior one, sides rounded near the middle; with closely placed punctures, somewhat larger than those on head and more individually distinct. *Scutellum* small and subtriangular. *Elytra* distinctly wider than prothorax, about three times as long as their width at base, sides parallel to about the middle, then slightly dilated, with rows of moderately large, reticulate punctures, beginning at the base and ceasing abruptly at the post-median white fascia, apical portion with very small, almost obsolete punctures. *Legs* long and somewhat slender. Length, 4.5-5.5 mm.

Hab.—Queensland: National Park (H. Hacker); New South Wales: Illawarra (W. du Boulay). Type, in author's collection; co-type, I. 15336, in South Australian Museum; and co-types in Queensland Museum.

Apparently a variable species in its colour and markings, for on some the prothorax is much darker, the lateral margins and base being almost black; two specimens have the anterior part of the elytra entirely pale, with the four white maculae more or less distinct; the humeral angles are either black or testaceous, and the black portions of the anterior part of elytra are sometimes at the margins joined to the

black posterior part, and the latter, on account of the faint sculpture, is more nitid than the remainder of the elytral surface.

Eleale aenea, n.sp.

Whole of upper-surface coppery, nitid, three apical joints of antennae dull black, labrum with greenish reflections. Clothed with long, black, erect hairs, more numerous on sides and legs, where they are interspersed with white ones, scutellum very scantily clothed with white pubescence. Under-surface blue with greenish reflections, intermediate and posterior coxae violet, clothed with long, shaggy, white hairs, thicker at the sides than elsewhere.

Head well produced in front, with a deep almost circular depression between the eyes, and a more elongate one at the base of each antenna; with close, fine punctures, individually distinct on top and confluent towards forepart. Antennae reaching to the base of prothorax, club five-jointed, joints 9 to 11 compressed, the apical one on the inside with a large, but not deep, emargination, the outside rounded and with the apex acute. *Prothorax* slightly narrower than the head (including the eyes), longer than wide, subapical transverse impression almost obsolete, subbasal one more distinct, sides near the middle evenly rounded; disk flat, with a shallow depression in the middle immediately in front of the base, and one on each side near the middle; near apex with fine, more or less distinct punctures, elsewhere transversely wrinkled. *Scutellum* almost circular and minutely punctured. *Elytra* at base wider than prothorax and about thrice as long, sides straight and parallel nearly to apex and then evenly rounded, humeral angles slightly salient, and behind scutellum with a large, round, and comparatively deep depression; with close, moderately large, deep, reticulate punctures, here and there transversely confluent, smaller at base and apex, but nevertheless quite distinct. *Legs* somewhat slender, posterior femora not reaching apex of elytra. Length, 8 mm.

Hab.—South Australia: Myponga (R. F. Kemp and A. H. Elston). Type, in author's collection; co-type, I. 15248, in South Australian Museum.

Distinguished from *E. aspera*, Newm., by having the sides of the prothorax dilated near the middle, the transverse wrinkles on same coarser, and the punctures on elytra less crowded and more reticulate. Very near *E. reichei*, Spin., but with the antennae more slender, transverse wrinkles on prothorax somewhat finer, and punctures on elytra much smaller and more crowded. In sculpture very similar to *E. viridis*, Guerin, but distinguished from it by its colour, the club of the antennae more distinctly five-jointed, and the transverse wrinkles on prothorax finer.

ELEALE SIMPLEX, Newm.

Specimens from Western Australia differ from the typical form in being larger, more greenish in colour, somewhat less nitid, and in having the antennae dark with the first three or four joints more or less testaceous; on one, an intermediate form, joints 1 to 4 are testaceous, 5 to 8 are dark, here and there paler, and the three apical joints are a sordid testaceous. *Eleale intricata*, Klug, I believe to be only a variety of this species.

Hab.—South Australia, Victoria, Tasmania, Western Australia.

ELEALE PULCHRA, Newm.

Two specimens from Cottesloe, Western Australia, have the whole of the antennae dull black, with only joints 2 and 3 slightly tinged with red; on one the prothorax has a distinct, interrupted, longitudinal median carina, on the other it is much less distinct. This is, apparently, the form *Spinola* named *E. bimaculata*.

LEMIDIA ALTERNATA, Lea.

Four specimens from Queensland differ from the typical form by the size and shape of the elytral markings. The red basal band is narrow, the submedian black band very wide, the postmedian red one about half the width of the preceding dark one, and the apical black portion about two-thirds the width of the preceding red part. On all of the four specimens the submedian black band is by far the widest. The whole of the legs are pale, except the posterior tarsi, which are more or less infuscated.

ALLELIDEA BREVIPENNIS, Pascoe.

A specimen taken near Ballarat, Victoria (near type locality), differs from the author's description by having all the tarsi blackish. Pascoe in his Latin description says, "tibiis flavis," and in his English delineation says, "tarsi yellow." This may, perhaps, be an error, "tibiae yellow" being meant, but only a reference to the type, which is in the British Museum, will definitely reveal this. The specimen before me has all the tibiae flavous, and the tarsi blackish.

CURCULIONIDAE.

MANDALOTUS LUTOSUS, Lea.

Four specimens of the above species were taken by R. F. Kemp and myself from moss on the summit of Mount Lofty, South Australia. The male differs from the author's description in having the carina on rostrum distinct, the granules on the prothorax transversely arranged, the under-surface of body diluted with red, particularly the last two segments of the abdomen, the coxae and parts of the under-surface of legs red.